

Remarks on Japanese RHOPALOCERA and descriptions of five apparently new species; by OLIVER E. JANSON.

Erebia niponica, O. Jans., Pl. V, f. 5.

Erebia niponica, O. Janson, Cist. Ent. II, p. 153 (1877).

Vanessa Pryeri, n. sp., Pl. V, f. 2.

Allied to *V. angelica*, Cram., but smaller and with the external dentations of the wings much stronger and more acute; above bright fulvous red, the black spots smaller than in *angelica* and clearly defined, the apical margins rather broadly ochreous, speckled with brown and bordered inwardly with brown lunular marks; beneath ochreous-brown or chocolate suffused with pinkish towards the apex, a central band and numerous fine irregular transverse lines on both wings, and several marks in the cell of the primaries similar to *angelica*, but darker and more clearly defined, the L shaped silvery mark on the secondaries large and conspicuous. Expanse of wings 2-2 $\frac{1}{4}$ inches.

Yokohama.

I have much pleasure in dedicating this species to my friend, Mr. H. Pryer, who has taken both it and *angelica* in large numbers, and has expressed the improbability of their being varieties of one species. I have examined a large series of both sexes and find the characters given above are always constant; the colour of the underside of *Pryeri* varies slightly, but is always very distinct from the pale yellow of *angelica*.

I adopt Cramer's name of *angelica*, as I cannot see any reason for considering that species identical with the *c-aureum*, Lin.

Linneus's description, although almost useless for the purpose of identification, agrees quite well with the species figured by Cramer as *c-aureum*, Lin., and Fabricius's description of the Linnean species applies without doubt to the same, although he erroneously described the female as another species under the name of *interrogationis*. The figures of both sexes given by

Hubner again represent the same species, I cannot, therefore, see that anything but confusion can arise by adopting the views of Godart in considering the *c-aureum*, Linn., a distinct species from the *c-aureum* of all other authors, the only evidence in favour of which is that Linneus states his species is from Asia instead of North America, and we know the old writers are so frequently wrong in the localities they give that no dependance can be placed on them.

Mr. W. H. Edwards, in an elaborate paper extending to nine pages in the Trans. Amer. Ent. Soc., has further complicated matters by fancying he had identified the *c-aureum*, Cram., Fab. (*nec* Lin.), and the *interrogationis*, Godt. (*nec* Fab.), with a third species which he re-names *Fabricii*; he even calls this species the red-winged *Grapta*, in contradistinction to the allied species which has the posterior wings black, how came he then to reconcile the figure of Cramer which has distinctly black wings, and the description of Fabricius, which is evidently taken from Cramer's figures, with his red winged species?

Mr. Kirby, in his Catalogue of Diurnal Lepidoptera, follows the views of Mr. Edwards, but still further adds to the confusion, and at the same time displays his ability in the identification of species, by adding to *c-aureum*, Lin., the reference to Hubner's figures, and then quoting *angelica*, Cram., as a synonym; if he has really compared the figures of these two authors, and recognised them as representing one and the same species, the numerous similar anomalies in his work can be easily accounted for.

The synonymy of the four species to which I have referred is as follows:—

1. *c-aureum*, L. (*nec* Godt., *nec* Edw., *nec* Kby.) North America.
c-aureum, Cram. ♂.
c-aureum, Fab. ♂.
interrogationis, Fab. ♀.
interrogationis, Godt. ♂, ♀.
c-aureum, Hubn. ♂, ♀.
interrogationis, Edwards.
interrogationis, Kirby.

2. *Fabricii*, EdwardsNorth America.
 c-aureum, Cram. (*sec.* Edwards).
 c-aureum, Fab. (*sec.* Edwards).
 interrogationis, Godt. (*sec.* Edwards).
3. *angelica*, Cram.China, Japan.
 c-aureum, Godt. (*nec* Lin.)
 c-aureum, Edwards (*nec* Lin.)
 c-aureum, Kirby (*nec* Lin.)
 c-aureum, Hubn. (*sec.* Kirby !)
4. *Pryeri*, O. Jans.Japan.

Araschnia fullax, n. sp. Pl. V, f. 3.

Above brownish-black; the thorax with greenish iridescent pubescence; apical margins of the abdominal segments narrowly bordered with white; antennæ black, the underside spotted with ochreous, apex of the club red; primaries with a γ shaped mark near the base, and two short transverse lines in the cell pale brown, a transverse band on the disc strongly interrupted near the middle, five small spots in a curved row near the apex, and a small linear spot about the middle and close to the margin pale ochreous, five irregular sub-marginal spots brick-red; secondaries with a transverse pale ochreous band before the middle and two fine undulating brick-red lines on the apical half, united anteriorly and interrupted by the nervures, the fringes of both wings spotted with white; beneath pale ochreous, the base of the wings with several irregular red-brown and black marks, the former margined with dark brown, the centre of both wings without markings, leaving a broad transverse band of the ground colour, the apical third occupied by a broad red-brown band, bordered on either side by sub-quadrate blackish spots, the centre with several small white spots, the apical margin with two fine black lines, the anal angle of secondaries with a small blue spot. Expanse of wings 2 inches 2 lines.

Yokohama (Pryer, Fenton).

Although resembling *A. prorsa*, Lin., in reality more nearly allied to *A. burejana*, Brem.; the differences existing between them being similar to those which obtain between *A. levana* and *prorsa*, it might be inferred that they are only permanent dimorphic conditions of one species but the assertion of Mr. F. Jonas that they appear at the same season and in different localities is opposed to this inference.

Thecla fasciata, n. sp., Pl. V, f. 4.

Above brownish-black, the wings deep black towards the apex, a fine line round the eyes and small spots on the under-side of the antennæ white; primaries with a broad purple stripe between the third median and sub-median nervures, commencing close to the base and extending about two-thirds along the wing, there are also some scattered purple scales in the cell, the fringes of both wings and the apex of the tails white; beneath fuscous-brown, the markings very similar to *T. japonica*, Murr., and *tarila*, Brem. Expanse of wings 1 inch 8 lines.

Yokohama (Pryer, Jonas).

Closely allied to *T. japonica*, but differing from the female of that species in its shorter, broader and less rounded wings, in its darker colour, and in having the purple markings described above. I have only seen three specimens which are females.

Leucophasia vibilia, n. sp.

Above creamy-white, the body black, dusted with white; primaries with the basal half of the costa and four short ill-defined longitudinal stripes at the apex dusky-black; beneath cream coloured, the posterior part of the primaries white, the costa broadly dusted with black; secondaries strongly dusted black on the anal half and on the costa, leaving a narrow longitudinal stripe of the ground colour, the dusky-black scales become rather sparse on the apical margin, but are very close and form an obscure transverse band about one-third from the apex. Expanse of wings $1\frac{1}{2}$ – $1\frac{3}{4}$ inches.

Nambu, North Japan (Pryer).

Differs from *L. amurensis*, Mén., besides the colour and markings, in have the primaries more acutely pointed at the apex. It is also allied to *L. Duponchelli*, Staud.

Terias betheseba, n. sp.

♂ Above lemon-yellow, the primaries narrowly margined with black on the costa, the apical black band commencing on the costa about one-third from the apex, thence obliquely narrowed to about one-third across the wing, and then gradually narrowed to the anal angle, the posterior two-thirds having three well marked semi-circular emarginations on its inner edge; secondaries with a very narrow black marginal line

slightly dilated anteriorly; beneath rather paler yellow than above, with fine sparingly scattered black scales, which form two indistinct transverse bands on the secondaries, the extremity of all the nervures marked with a very small black spot; the body black above, with pale yellow pubescence on the thorax, the sides of the abdomen yellow with a fine black longitudinal line, the underside and legs pinkish-white.

The female is smaller and of a paler yellow than the male, with the wings rather thickly speckled with black, the apical band on the primaries ends abruptly just before the anal angle, and the secondaries have a narrower black margin and a large rather ill-defined black spot at the anterior angle. Expanse of wings 1 inch 4 lines—1 inch 8 lines.

Yokohama (Pryer).

Allied to *T. laeta*, Bdv., but differs in having the primaries more rounded at the apex, and in its paler colour and in the form of its markings.

Terias Jaegeri, Ménét.

This species is allied to the Indian *T. laeta*. Boisduval mentions a Japanese variety of it, but I think there is no doubt it is distinct from that species, I have examined nearly a hundred specimens and find they differ in several constant characters from their Indian ally, the sexes present scarcely any difference in size or coloration; the locality given by Ménétrés (Hayti) is of course erroneous.

Papilio macilentus, O. Janson, Pl. V, f. 1.

Papilio macilentus, O. Jans., Cist. Ent. II, p. 158 (1877).

Pamphila mathias, Fabr.

Epargyreus mathias, Butl., Cat. Fabr. Diurnal Lepidop. p. 275, t. iii, f. 8.

I am indebted to Mr. H. Pryer for specimens of the male of this widely distributed species, which have enabled me to identify it with the description and figure above quoted; as I had previously only seen female specimens from Japan, I was not able to satisfactorily determine to what species they pertained.

